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TITLE:  
**A System and Method of Managing a Position  
in Financial Stock Investments**

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1                   **A SYSTEM AND METHOD OF MANAGING A POSITION**  
2                   **IN FINANCIAL STOCK INVESTMENTS**

3                   TECHNICAL FIELD OF THE INVENTION

4    **[0001]**     The present invention relates generally to systems and  
5    methods for investing in financial instruments. More  
6    particularly the invention relates to managing a combination of  
7    stock, cash and option investments.

8                   BACKGROUND OF THE INVENTION

9    **[0002]**     It is well known that profit can be made in the stock  
10 market. "Buy low - sell high" is the conventional wisdom. It  
11 is also well known that profit can be made by selling stock  
12 short. In either case, making a profit depends on correctly  
13 guessing the direction of the stock's price change. If the  
14 price of the stock rises the buyers make a profit and those  
15 selling short lose money. Conversely, if the stock price  
16 decreases the buyers lose and the short sellers make a profit.  
17 There are strategies available to reduce the risks of trading on  
18 stocks. For example: covered calls and protective puts are  
19 strategies that use options to reduce the volatility risks of  
20 investing in stocks.

21   **[0003]**     The objective of the system and method taught below is  
22 to produce consistent significant yield at a reduced level of  
23 risk regardless of overall market direction or even the  
24 direction of the price of an individual security. The focus of

1 the system is to make income on the sale of options rather than  
2 on the sale of stock that has risen in price. This is not to  
3 say that no profit is made from the sale of stock only that the  
4 focus is on making profit from premiums from the sale of  
5 options.

1                   BRIEF DESCRIPTION OF THE DRAWINGS

2   **[004]**       For a more complete understanding of the present  
3   invention and the advantages thereof, reference is now made to  
4   the following description taken in conjunction with the  
5   accompanying drawings in which like reference numerals indicate  
6   like features and wherein:

7   FIGURE 1 is a flow diagram that illustrates the flow of an  
8   embodiment of the system and method;

9   FIGURE 2 illustrates the steps in determining what information  
10   to input in step 100 in FIGURE 1;

11   FIGURE 3 illustrates the screening process in step 130 of FIGURE  
12   1;

13   FIGURE 4 illustrates the sorting process in step 150 of FIGURE  
14   1;

15   FIGURE 5 illustrates the process of picking the stock and  
16   quantity of stock to purchase of step 170 of FIGURE 1;

17   FIGURE 6 illustrates the process of purchasing stock and  
18   offering option contracts of step 214 of FIGURE 1;

19   FIGURE 7 illustrates a recording keeping tool for tracking the  
20   performance of a position;

21   FIGURE 8 illustrates another record keeping tool for tracking  
22   the price dispersion of a position;

1 FIGURE 9 is an illustration of the flow for determination of how  
2 to record the a stock purchase in the position by band in FIGURE  
3 8;

4 FIGURE 10 is an illustration of the process of determining if a  
5 band rule is violated;

6 FIGURE 11 is an illustration of an embodiment of a system of  
7 bundling of stocks;

8 FIGURE 12 is an illustration of an embodiment of a categorical  
9 breakdown of investment funds and divisor constraints for an  
10 investment fund based on the size and type of account (margin or  
11 non-margin) in which an investment will be traded;

12 FIGURE 13 is an illustration of a table of adjustments to  
13 correct for the increased risk of unused funds in larger  
14 investment funds;

15 FIGURE 14 is an illustration of an embodiment of a record  
16 keeping tool for category 2 funds;

17 FIGURE 15 is an illustration of an embodiment of a system for  
18 picking stocks for a category 2 fund;

19 FIGURE 16 is an illustration of an embodiment of a record-  
20 keeping tool for category 3 funds;

21 FIGURE 17 is an illustration of an embodiment of a table of  
22 liquidity (open interest) constraints for different levels of  
23 purchase of a stock; and

1 FIGURE 18 is an illustration of an embodiment of a system for  
2 picking stocks for a category 3 account.

3

1                   DETAILED DESCRIPTION OF THE INVENTION

2   **[0005]**    Although the present invention is described in detail,  
3   it should be understood that various changes, substitutions and  
4   alterations can be made hereto without departing from the spirit  
5   and scope of the invention as described by the appended claims.

6   **[0006]**    The objective of the system and method taught below is  
7   to produce consistent significant yield at a reduced level of  
8   risk regardless of overall market direction or price direction  
9   of an individual security. The system uses a series of  
10   investment rules applied to the selection and timing of purchase  
11   of stocks and the sale of correlated options.

12   **[0007]**    FIGURE 1 illustrates one embodiment of the system and  
13   method with regard to a single position investment described  
14   below. The system may be employed in software, or a manual,  
15   guide or instructional materials or various combinations of the  
16   above or other implementations. In this embodiment the starting  
17   point concerns input to the system of the size of the investment  
18   100 for the position. In the present embodiment this input  
19   takes the form of a monthly allowance and an upper price limit  
20   for picking the stock for the position. The determination of  
21   this input can be made through the use of a subsystem whose flow  
22   is illustrated in FIGURE 2.

23   **[0008]**    FIGURE 2 illustrates steps to determine a monthly  
24   allowance for investment in a position, and the upper limit of

1 the stock price to be used in selecting a stock for the position  
2 through a series of constraints. In this embodiment the  
3 determination starts with the input of the total amount of cash  
4 available 110. A determination of what to do next depends on  
5 the certain factors relating to the investment mechanism in  
6 which the cash is being handled 112. If the cash is in  
7 brokerage account with the ability to borrow on margin, account  
8 constraint ( $C_{\text{mar}}$ ) is applied 114. On the other hand if the cash  
9 is not in a margin account (for example it is in a qualified  
10 plan such as an IRA) or the investor does not want take the  
11 margin risk/advantage a different non-margin constraint ( $C_{\text{nmar}}$ ) is  
12 applied 116. With either of these constraints applied the  
13 result is the monthly investment allowance 118. This is the  
14 total amount available in a month to invest in a position. In  
15 alternative embodiments the user might input the monthly  
16 allowance 118 directly rather than to go through the steps of  
17 applying the margin/non-margin funds constraints.

18 [0009] In the embodiment illustrated in FIGURE 2, after the  
19 margin constraint ( $C_{\text{mar}}$ ) or non-margin constraint ( $C_{\text{nmar}}$ ) is  
20 applied a second constraint, a stock price constraint ( $P_{UL}$ ), is  
21 applied 120 to the monthly allowance 118 to set upper limits on  
22 the price of stock ( $P_{UL}$ ) to select for the position 122.

23 [0010] For a position, an appropriate price constraint could  
24 be One Hundred ( $P_{LL} = 100$ ) and a suitable margin account

1 constraint could be Five ( $C_{\text{mar}} = 5$ ) or a suitable non-margin  
2 account constraint could be Eight ( $C_{\text{nmar}} = 8$ ). The reason  
3 different constraints are applied to funds in margin accounts  
4 and non-margin accounts is the amount of investment cash  
5 available is not the same. If the cash is being traded out of a  
6 brokerage account with margin, the investor has the ability to  
7 borrow cash in the account, thus raising the cash amount  
8 available to complete transactions. So for a maximum investment  
9 of ten times (10x) the initial investment purchase, a margin  
10 constraint of Five 5 ( $C_{\text{mar}} = 5$ ) would enable the investor to  
11 purchase one-hundred (100) shares up to a maximum of ten time  
12 (10x) before running out of money. This includes the money  
13 borrowed from the broker on margin. The investor will not  
14 purchase the same stock ten times unless the price of the stock  
15 has been declining, so the investor should not have to use  
16 margin until about the eighth month. This calculation is  
17 designed to get the most out of the investor's cash by using  
18 some of the margin available, but minimize the chance of a  
19 margin call. It is a balance between the risks of not putting  
20 the money to work and the risk of a margin call. In accounts  
21 without margin, less money is available in the monthly allowance  
22 thereby increasing the risk that some of the money will not be  
23 invested.

1 [0011] The purpose of calculating a monthly allowance is to  
2 spread the purchases in a position over time. If a monthly  
3 allowance is not calculated and there is a finite amount of cash  
4 to invest, then failing to use such a limit can result in  
5 running out of cash too soon. The ability to continue buying  
6 shares increases the chances of being able to sell short-term  
7 options profitably against some or all of these shares, thus  
8 stabilizing the monthly yield. The monthly allowance and stock  
9 price limits are input 100 in FIGURE 1.

10 [0012] Returning to FIGURE 1, the next steps are to create a  
11 screened list of stocks or select a pre-screened lists of  
12 stocks, 130 and sort the list 150 to facilitate the next step  
13 picking the stocks to purchase 214. There are many options as  
14 to how select and sort the list. The following discussion  
15 addresses factors of concern in selection criteria and sorting  
16 criteria.

17 [0013] FIGURE 3 is an illustration of one embodiment of a  
18 suitable screening process 130. One screening selection criteria  
19 is that the stock has an option market 132. Another criteria is  
20 that the option market for the stock is "active" 134. One  
21 possible criteria used for parameterizing "activity" of the  
22 market is the volume of trades. A current daily trading volume  
23 of greater-than-or-equal to 5 trades ( $C_v = 5 \rightarrow V \geq 5$ ) is a  
24 reasonable constraint/threshold for determining that the option

1 market qualifies as "active." Stocks with option contracts with  
2 low volume can also be traded but tend to have lower return  
3 because low volume tends to increase the spreads between the bid  
4 and ask price resulting in less profit for the investor.

5 [0014] Liquidity is another attribute which the screening  
6 function should preferably take into account. One useful  
7 screening criterion for the liquidity of the options contracts  
8 for a stock is the "open interest" level 136. The "open  
9 interest" level represents the number of outstanding contacts.

10 A suitable constraint/threshold for open interest level is  
11 greater-than-or-equal to One Hundred ( $C_{L1} = 100 \rightarrow L \geq 100$ ).  
12 Similar to the option "activity" trade volume threshold, the  
13 open interest threshold reduces the spread between the bid and  
14 ask prices of the options.

15 [0015] Another concern addressed by the screening process  
16 relates to the long-term viability of the issuer 138. This  
17 factor is much more important to the success of the position  
18 than the short-term or long-term price movement on the security.  
19 Very generally stated, the objective of these criteria are to  
20 screen-out stock in companies based on their relative risk of  
21 bankruptcy. For example, the Z-score bankruptcy indicator  
22 developed by Edward Altman and other similar or comparable  
23 indicators could be used. Using bankruptcy indicators, like Z-  
24 score, a screening criteria can be set based on the development

1 of the indicators. In other embodiments other thresholds could  
2 be used. Although not shown in the FIGUREs it is also possible  
3 to create multiple lists with different screening factor  
4 constraints/thresholds. In another embodiment of the invention  
5 where the user selects a prescreened list, the user might be  
6 presented with a selection of prescreened lists with different  
7 risk profiles.

8 [0016] Screen out stocks over upper price limit ( $P_{UL} \geq P$ ) 140.  
9 Screen out stocks below a lower price limit ( $P \leq P_{LL}$ ). A suitable  
10 lower price limit of \$25.00 has been found suitable. Studies  
11 have shown an increased risk of bankruptcy for lower priced  
12 stocks. In other embodiments, other thresholds could be used.

13 [0017] The simplest solution for step 130 in FIGURE 1 is to  
14 select a prescreened list. There are many such lists available.  
15 For example suitable lists can be found at listing/research  
16 services such as Power Options Plus found at [www.poweropt.com](http://www.poweropt.com).  
17 In addition, the Power Options Plus service provides research  
18 and report generation tools which are useful for carrying out  
19 the select and sort operations to assist the user in selecting  
20 stocks for a position as described below.

21 [0018] The next step 144 is to select by Option expiration  
22 time frame. The reason for this parameter is to avoid starting  
23 the position too close to the expiration of the start of the  
24 position and to maximize the rate at which the option price

1 declines as a function of time. The list is screened by  
2 excluding all but the options that expire in the following  
3 month.

4 [0019] The list of stock/option combinations is further  
5 screened to only include options one strike out of the money.  
6 These are the options with the strike price closest to the  
7 current stock price, but excluding those with strike prices  
8 below the current stock price. These options have the highest  
9 time-value component of premium, while still offering the  
10 possibility of profit from the sale of the stock.

11

12 [0020] FIGURE 4 illustrates an embodiment of a sorting  
13 process 150 of the screened list of stocks. First information  
14 is gathered 152 for the screened list 130 of stocks and options.  
15 In this embodiment the following information is gathered: (1)  
16 with respect to the stocks - the stock symbol, the company name,  
17 and the last stock price; and (2) with respect to the options -  
18 the option symbol, the expiration date and the strike price, the  
19 option bid price and the bid price as a percentage of the stock  
20 price. In other embodiments, the implied or historical  
21 volatility could be included.

22 [0021] The next step is to sort the list of stock/option  
23 combinations by the Option Bid Price from highest to lowest.  
24 For reasons that will be appreciated below, the more expensive

1 options are of greater interest since it is what the investor  
2 will be selling and the plan is agnostic to the direction of the  
3 stock. Returning again to FIGURE 1 a screened and sorted list  
4 of stocks has been created. And steps 130 and 150 are complete.  
5 The next step is to pick the stock to purchase - step 170.  
6 [0022] FIGURE 5 illustrates an embodiment of the procedures  
7 for picking the stock to purchase. In this embodiment, a choice  
8 is made as to which stock to select and at what level: Level  
9 100 - 100 shares; or Level 200 - 200 shares. The Levels of 100  
10 and 200 shares are a result of the number of shares per option  
11 contract that are traded or 100 shares per option contract. In  
12 other circumstances different levels or increments may be  
13 appropriate. In this embodiment a Level 300, or higher, is not  
14 discussed because of concerns with liquidity in acquiring too  
15 many shares of stock. In other embodiments higher levels may be  
16 appropriate.

17 [0023] The first step is to pick the first stock on the list  
18 sorted in step 150 that is under the upper price limit ( $P_{UL}$ ) 172.  
19 The reason to pick the first stock is that because of the  
20 sorting, it represents the largest option premium by selling  
21 calls on a 100 share purchase of this stock. Then consideration  
22 should be made as to whether to purchase stock at Level 200 (200  
23 shares of one of the listed stocks instead of 100 shares of the  
24 first listed stock available under  $P_{UL}$ ) 174. This determination

1 is made by comparing the previously calculated stock price upper  
2 limit to a constraint. In this embodiment the constraint is  
3 \$75.00. The parameter increases the probability of investing in  
4 high-priced stocks.

5 [0024] If the stock price upper limit is greater than 75 then  
6 the Level 200 purchase option should be considered 176. First  
7 divide the stock price upper limit by 2 ( $P_{UL} / 2$ ) 178 to get a  
8 stock Level 200 stock price upper limit ( $P_{UL2}$ ). Then scan down  
9 the list to the first stock equal to or below the Level 200  
10 stock price upper limit 180. If the open interest value for  
11 this stock is above a Level 200 constraint/threshold 182 then  
12 proceed to step 184. If not, then keep scanning down the list  
13 for a stock at or below the Level 200 upper limit and with an  
14 open interest over the Level 200 open interest constraint ( $C_{L2}$ ).  
15 In the present embodiment an appropriate level for the open  
16 interest constraint is 500. For different levels of risk  
17 different open interest constraints could be applied. In yet  
18 other embodiments liquidity parameters other than the open  
19 interest parameter could be used with different constraint  
20 values.

21 [0025] Although not shown in FIGURE 5, if no stock is found  
22 at or below the Level 200 stock price upper limit that has an  
23 open interest above the Level 200 open interest constraint then  
24 the investor should proceed with selecting the Level 100 stock.

1   **[0026]**     If a suitable Level 200 stock has been picked then the  
2   prospective results are compared to determine whether to  
3   purchase the Level 100 stock or the Level 200 stock. First  
4   determine the option bid price for the Level 200 stock 184. The  
5   Level 200 stock option bid price is multiplied by 2 in this  
6   embodiment because twice as much stock means twice as many  
7   option contracts. In step 186 and 188, the results of the  
8   option bid prices for Level 100 and Level 200 are compared. If  
9   the Level 100 result is equal or greater, than Level 100 stock  
10   is selected for purchase 190. If the Level 200 result is  
11   greater, than the Level 200 stock is selected for purchase 192.  
12   Now that either the Level 100 or Level 200 stock has been  
13   selected, proceed to Fig. 6. Now we can turn our attention back  
14   to FIGURE 1.

15   **[0027]**     Returning to FIGURE 1 step 170 is completed - the  
16   stock and number of shares to purchase has been determined. In  
17   step 214 the stock is purchased and recorded. This can be done  
18   through many avenues. For example the purchase can be made  
19   through an online account at optionsXpress:  
20   [www.optionsxpress.com](http://www.optionsxpress.com).

21   **[0028]**     FIGURE 6 illustrates the steps of purchasing of stock  
22   and sale of options in step 214 of FIGURE 1. If the stock was  
23   picked at Level 100 200 then 100 shares of stock should be  
24   purchased 202. If the stock was picked at Level 200 204, then

1    200 shares should be purchased 206. In either case the number  
2    of options contracts to sell should be the number of shares  
3    purchased divided by 100 ( $S \div 100 = Op$ ) 210.

4    [0029] At the end of each month the investor's income can be  
5    calculate as follows:

6                          MI=(NP) (Op) (100)

7                          where MI is the Monthly Income; NP is the Net Premium; Op  
8                          is the Number of Contracts.

9                          This calculation does not take into account additional profit  
10                         resulting from the actual sale of the shares when/if any stocks  
11                         are called away.

12                        [0030] Returning to FIGURE 1 step 214 is completed. Step 260  
13                         should only be used once a month. This step leads to the  
14                         possibility of purchasing more stock. This should only be done  
15                         in a position once a month. This frequency is based on the  
16                         described embodiment where a front month option is sold, and  
17                         which expires after one month. In step 260, an inquiry is made  
18                         as to whether all of the shares of stock have been purchased by  
19                         the owners of the call options. If they have, then the position  
20                         is closed and the process should be begun again (step 100).

21                        [0031] To track the performance of the position the table  
22                         shown in FIGURE 7 should be updated after each transaction. The  
23                         first column 220 is the month of the position. In the "date"  
24                         column 222 insert the date in the month that the stock was

1 purchased. In the "# shares" column 224 insert the number of  
2 shares purchased. In the "price paid" column 226 insert the  
3 price paid per share. In the "extended amount" column 228  
4 insert the total amount paid for the stock:

5  $P_E = (P) \times (S)$

6 where  $P_E$  is the "extended amount"; P is the price per share  
7 and S is the number of shares.

8 The last two columns 230 and 232 are filled in after income is  
9 received from the options and the stock is sold.

10 [0032] The cost basis of the stock can be calculated /  
11 recalculated each time stock is purchased should be calculated  
12 with the following equation:

13  $P_{CB} = \frac{\sum P_E}{\sum S}$  [1]

14 where  $P_{CB}$  is the cost basis;  $\sum P_E$  is the total of the  
15 "extended amounts" for shares still owned and  $\sum S$  is the  
16 total number of shares owned.

17 [0033] In addition to filling in the table of FIGURE 7 each  
18 month a table like the table in FIGURE 8 (Band Purchase Record)  
19 can be updated. This table records the bands in which a  
20 purchase was made. The first column 240 is the band number the  
21 second and third columns 242 and 244 are the price range for the  
22 band. In this example the bands are at intervals of \$2.50 for  
23 prices below \$30.00 dollars and at intervals of \$5.00 for prices

1 above \$30.00. If options are not available at strike prices,  
2 the limits of the bands should reflect this. For example, if  
3 there is no \$27.50 option available, the Band in this region  
4 should span from \$25.00 to \$30.00.

5 [0034] When the first purchase is made in a band an X should  
6 be placed in the "First Purchase" column 246. The second time a  
7 purchase is made in the same band, an X should be placed in the  
8 "Second Purchase column 248 . . . and so on. (When stock is  
9 sold an X in the Band representing the stock sold should be  
10 erased.)

11 [0035] At the end of the first month one of three things will  
12 happen:

13 (1) If the price of the stock is higher than the strike price of  
14 the calls at the expiration (in this example, the third Friday  
15 of the month), the purchased shares will very likely be called  
16 away and the investor will be paid the strike price for each  
17 share. The profits can be calculated with the following  
18 equation:

$$Y_s = (P_o - P_{CB})(S) - C$$

20 where  $Y_s$  is the profit from the sale of stock,  $P_o$  is the  
21 strike price in the option,  $P_{CB}$  is the cost basis of the  
22 stock,  $S$  is the number of shares sold, and  $C$  is the  
23 commission paid.

1 [0036] (2) If the price of the stock is lower than the strike  
2 price of the calls but above the strike price of the puts, at  
3 expiration of the options, the options will most likely expire  
4 worthless. Income for the month can be calculated with the  
5 following equation:

6 
$$Y_M = (L)(Y_P) - C$$

7 where  $Y_M$  is the monthly income;  $L$  is the level (100 for  
8 Level 100, 200 for Level 200, etc.);  $Y_P$  is the Net Premium  
9 sum of the call premiums and the put premiums; and  $C$  is the  
10 commission.

11 [0037] (3) If the price of the stock is below the price of  
12 the puts, the calls will expire and the puts will very likely be  
13 assigned. In this case the monthly profit can be calculated  
14 with the following equation:

15 
$$Y_M = (L)(Y_P) - C$$

16 where  $Y_M$  is the monthly income;  $L$  is the level (100 for  
17 Level 100, 200 for Level 200, etc.);  $Y_P$  is the Net Premium  
18 sum of the call premiums and the put premiums; and  $C$  is the  
19 commission.

20 If the puts are assigned, shares will not be purchased in the  
21 second month (next month). The investor will proceed directly  
22 to determining the calls to be sold in the second month.

1 [0038] Returning to FIGURE 1, the Record step 214 has been  
2 completed for the first month's purchase and sales. How to  
3 proceed depends on whether all of the options have been  
4 exercised 260. In the first end of month contingency, where the  
5 stock price rose, the options were exercised and step 260  
6 results in starting over again in step 100 to create a new  
7 position. Otherwise a decision needs to be made as to whether  
8 or not to purchase more stock. In this example, this decision  
9 should be made each Monday following the expiration of the  
10 previous options contracts. Since expiration occurs on the  
11 third Friday of the month, the decision should be made on the  
12 Monday following the third Friday of the month. The first  
13 condition of the decision is based on how many previous purchase  
14 transactions ( $T_n$ ) have resulted in the purchase of stock 262. In  
15 this example if the number of transactions equals or exceeds a  
16 threshold of 10 purchases their calls to sell are entered 264.  
17 If not, then the next determination to make is if a put has been  
18 assigned 265. If a put has been assigned, then proceed to  
19 determining the calls to sell 264. However if the put has not  
20 been assigned, then the next determination is whether the  
21 purchase would violate a band rule. 270.

22 [0039] One embodiment of a band rule is illustrated in FIGURE  
23 10. First a determination must be made concerning what band the  
24 current price falls into, (B) 271. This can be determined from

1 the current price and reference to the Band Purchase Record,  
2 like the one illustrated in FIGURE 8, for the current position.  
3 From the current price band determination and reference to the  
4 Band Purchase Record, a determination can be made as to which  
5 band is the next lowest band ( $B_{(n+1)}$ ) 272. The following  
6 determinations should also be made by reference to the Band  
7 Purchase Record: determine whether three (3) or more purchases  
8 have been made in any Band 273; determine the number of  
9 purchases in the current Band (B) 274; and determine the number  
10 of purchases in the next lowest band ( $B_{(n+1)}$ ) 275. If three  
11 purchases have not been made in any band 276 the purchase of  
12 stock and sale of options should be made in the current band  
13 277. Even if three (3) purchases have been made in one band, a  
14 purchase might still be made. If less than two purchases have  
15 been made in the current band (B) 278, then another purchase  
16 should be made in the current band 277 (again paired with the  
17 sale of options). This completes one embodiment of determining  
18 whether a price band rule has been violated. Other embodiments  
19 may also be suitable. The primary purpose of the band rule is  
20 to make sure that the position's price spread is appropriately  
21 dispersed. The rule is intended to avoid purchasing too many  
22 shares too close together in price.

23 [0040] In FIGURE 10 a determination was made as to whether a  
24 position price dispersion rule was violated. If the rule was

1 not violated and a new purchase would not bunch the holdings in  
2 a stock position too closely together, then we can return to  
3 step 300 in FIGURE 1 to purchase the stock and sell the option.  
4 However, if the dispersion rule was violated than no purchases  
5 should be made until step 260 repeats the following period (in  
6 this example - the following month). In the present embodiment,  
7 if the band rule has been violated, then it may be appropriate  
8 to consider selling a put in the stock position. This  
9 determination is made in step 310. An embodiment of how to make  
10 this determination is illustrated in greater detail in FIGURE  
11 10.

12 [0041] Steps 271 through 278 in FIGURE 10 were discussed  
13 above. The determination as to whether to sell a put proceeds  
14 at step 279. To get to step 279 it has already been determined  
15 that three purchases have been made in a single band 276 and  
16 that 2 or more purchases have been made in the current band (B)  
17 278. If less than 2 purchases have been made in the next lowest  
18 band ( $B_{(n+1)}$ ) 279, then no puts should be sold (and no stock  
19 should be purchased 280). However, if fewer than 2 purchases  
20 have been made in the next lowest band ( $B_{(n+1)}$ ) 279, then a Band  
21 Rule Put should be sold 281. Now that a determination of  
22 whether to sell a put has been made, we can return to FIGURE 1.

23 [0042] Every time a transaction is completed the tables in  
24 FIGURE 7 & FIGURE 8 should be updated and the cost basis

1 calculation from equation [1] should be recalculated to  
2 calculate the new cost basis per share.

3 [0043] In a continuing position each month the number of  
4 calls sold is determined by the number of shares owned including  
5 the shares purchased in that month according to the following  
6 equation:

7  $K_p = S/K_I$

8 where  $K_p$  is the number of option contracts and  $S$  is the  
9 number of stocks owned and  $K_I$  is the number of stocks each  
10 option contract covers.

11 By way of example, if an investor previously held 300 shares and  
12 just purchased an additional 100 shares then 400 shares are  
13 owned. The investor will sell 4 call option contracts, assuming  
14 each contract covers 100 shares.

15 [0044] Each month call contracts are sold that expire the  
16 following month. The call price depends on the cost basis of  
17 the stock in the position and, the strike price higher than the  
18 cost basis. For example, if the cost basis is \$40.27, then one  
19 strike above the position's cost basis would be the \$45.00  
20 strike price.

21 [0045] If the cost basis is just above a strike price, the  
22 investor may want to consider the call at that strike if the  
23 value of the premium is greater than the time value of the  
24 premium at the strike above the cost basis and the intrinsic

1 value of the premium is less than a predetermined level. In the  
2 present embodiment, this predetermined level is \$0.50. The time  
3 value of a premium is given by the following formula.

4

$$P = P_T + P_I$$

5 where  $P$  is the total premium;  $P_T$  is the time value; and  $P_I$   
6 is the intrinsic value..

7 The intrinsic value can be calculated by the following formula  
8 (as long as  $P_I$  is not less than zero):

9

$$P_I = P_s - S$$

10 where  $P_s$  is the stock price and  $S$  is the strike price.

11

12 For example, if the cost basis is \$50.15 and the premium on the  
13 \$50.00 strike call is \$2.35 and the premium on the \$55.00 call  
14 is \$0.70, then it is reasonable to sell the call with the \$50.00  
15 strike price. This may result in the loss of \$0.15 a share but  
16 that is more than offset by the \$2.35 made on the premiums for a  
17 net of \$2.20 a share which is more than the \$0.70 premium at the  
18 higher strike. However, taking the lower strike will result in  
19 losing the opportunity to make \$4.85 a share on the risk of the  
20 call being exercised at the higher strike price.

21 [0046] If calls are not available at a strike price above the  
22 cost basis or the bid premium is so low the calls could not be  
23 sold for an amount greater than the commission, the investor  
24 should bundle the shares. The goal of bundling is to find the

1 combination of stock purchases that can be bundled together to  
2 bring the most option premium. Bundling should only be  
3 considered if calls cannot be sold profitably against all of the  
4 shares in a position.

5 [0047] FIGURE 11 illustrates one embodiment of bundling for  
6 determining what call option contracts to sell. In the first  
7 pass the shares still held in the investment are organized into  
8 discrete bundles. The first bundle includes the maximum number  
9 of shares which can be aggregated such that the average cost  
10 basis of the bundle is less than the strike price of the option  
11 just above the price of the lowest priced shares 312-316. When  
12 aggregating the shares, shares in a band can be aggregated in  
13 increments equivalent to the increments determined by the number  
14 of shares in a call contract for that stock.

15 [0048] Excluding the shares in the first bundle, form  
16 subsequent bundles using the same criteria for each higher  
17 strike price 320-322 until each share is included in a bundle  
18 324. Then determine how much option premium can be sold by  
19 selling the corresponding number of contracts at the  
20 corresponding strikes, excluding bundles whose corresponding  
21 calls are not offered or whose bid price is so low that the  
22 options cannot be sold profitably. Tentatively record the total  
23 premium for this first pass for options where the options can be  
24 sold profitably. However, this might not be the most profitable

1 set of bundles. Therefore, other bundle(s) should be  
2 considered. Repeat steps 312-324 modifying step 314 to start  
3 with the option two (2) strikes above the purchase price of the  
4 lowest shares 330. Tentatively record the total premium for the  
5 second pass for options where the options can be sold  
6 profitably. Compare the total premium for the first pass to the  
7 total premium in the second pass 334. Sell the contracts  
8 determined by the pass with the higher total premium 336 or 338.  
9 [0049] The preceding has been a description of the process  
10 and system for a single position. The following is a  
11 description of an expanded process and system for larger  
12 accounts.

13 [0050] As in FIGURE 1 and FIGURE 2 in the single position, a  
14 Monthly Allowance must be calculated. The Monthly Allowance can  
15 be calculated as follows:

16  $I_{MA} = I_{UC} \div C_D$

17 where  $I_{MA}$  is the Monthly allowance  $I_{UC}$  is the total  
18 investment unassigned cash and  $C_D$  is a divisor constraint.

19 The divisor constraint is determined based on the size of the  
20 total stake and whether trading is done out of a margin account  
21 or a non-margin account. The stake is the total amount of  
22 investment in the account. It can be calculated with the  
23 following formula:

24  $I_T = I + I_A + Y_D + Y_S$

1       where  $I_T$  is the current stake,  $I$  is the original investment  
2        $I_A$  is the sum of any additional contributions minus any  
3       withdrawals  $Y_D$  is all interest or dividends and  $Y_s$  is any  
4       profit (minus any loss) from any closed positions.

5       An investor's accounts can be placed into categories based on  
6       the stake and the availability of margin. One embodiment of  
7       categories and divisor constraints is illustrated in FIGURE 12.  
8       Other categories and/or divisor constraints are possible and  
9       likely.

10      **[0051]**     The total unassigned cash ( $I_{UC}$ ) is calculated using the  
11     following formula:

$$I_{UC} = (I_T) (F_A) - I_{TA}$$

13       where  $I_T$  is the total investment or stake defined above;  $F_A$   
14       is an adjustment factor; and  $I_{TA}$  is the investment that has  
15       been assigned.

16       The formula for the total investment or stake ( $I_T$ ) was provided  
17       above. The adjustment factor is another multiplier that takes  
18       into account the fact that it is unlikely that every position  
19       will make full use of the cash reserved for that position. The  
20       larger the account, the greater the chance of unused cash, the  
21       larger the multiplier or adjustment factor. The table in FIGURE  
22       13 is one embodiment of suitable adjustment factors. The total  
23       assigned cash can be calculated with the following formula:

$$I_{TA} = \sum_n (P_n) (C_{D_n}) (L_n)$$

where  $I_{TA}$  is the total assigned cash;  $n$  is the number of open positions;  $P_n$  is the initial price of the stock in a position;  $C_{D_n}$  is the divisor constraint; and  $L_n$  is the level of stock purchase (number of shares).

[0052] In addition to the Monthly Allowance a diversification constraint must also be calculated. It can be calculated using the following formula:

$$C_{DL} = 0.25 \times I_T \div C_D$$

where  $C_{DL}$  is the diversification constraint;  $I_T$  is the Stake or total investment; and  $C_D$  is the divisor constraint

[0053] Now the input parameters for larger, multi-position accounts are known. In the preferred embodiment of multi position accounts, the screening process 130 is also modified. For category 2 accounts, the price upper limit  $P_{UL}$  is \$70. In the preferred embodiment, the stock picking procedure 170 for Category 2 larger accounts is different than the procedure for single positions. When picking stocks, a table like the one illustrated in FIGURE 14 and the flow chart in FIGURE 15 will be helpful.

[0054] FIGURE 15 is an illustration of the procedure for picking stocks in a multi-position account. From the screened and sorted list the first stock is picked 400. If the Open

1 Interest level in that stock is NOT greater than a Level 200  
2 threshold/constraint  $T_{L2}$  (500 in this embodiment), step 402, then  
3 a Level 100 purchase should be considered. The extended  
4 amount ( $P_{EL1}$ ) of such a purchase is calculated by multiplying the  
5 stock price times 100 (the Level 100 stock increment) 404. The  
6 extended amount is then compared to the Monthly Allowance  
7 remaining ( $I_{RA}$ ) 410. If it is larger, then proceed to picking  
8 the next stock on the list 408 and begin again. If the extended  
9 amount is smaller then proceed with purchasing the stock at  
10 Level 100 and recording the purchase in the monthly purchase  
11 table (FIGURE 14) 412. After the purchase the monthly allowance  
12 remaining available must be adjusted by subtracting the new  
13 purchase from the previous monthly allowance remaining 414. If  
14 the monthly allowance remaining is less than \$2,500 (Minimum  
15 stock price of \$25 times 100 shares) 416 then quit for the month  
16 418. If the monthly allowance remaining is larger 416 and there  
17 are no stocks left on the list 420 then quit for the month 418.  
18 On the other hand if there are stocks left on the list 420, then  
19 proceed with picking the next stock on the list 408 and begin  
20 again.

21 [0055] Return to comparing the first picked stock to the Open  
22 Interest Liquidity constraint/threshold in step 402. If the  
23 threshold is equal or greater than the threshold then the  
24 extended amount for a Level 200 purchase should be calculated

1 422 and compared to the Diversification constraint ( $C_{DL}$ ) 424 and  
2 the monthly allowance remaining ( $I_{RA}$ ) 426. If it is larger than  
3 either one of these constraints 424 or 426, then a Level 100  
4 purchase for the stock is considered (starting at step 404).  
5 However if the extended amount is below both of these  
6 constraints then a Level 200 purchase of the stock should be  
7 made and the purchase should be recorded 428. After any  
8 purchase the purchase should be subtracted from the previous  
9 monthly allowance remaining to get the new monthly allowance  
10 remaining 414. This process is repeated until the monthly  
11 allowance remaining falls below \$2,500 416 or the sorted list of  
12 stocks is exhausted 420.

13 [0056] For each stock purchased each month the determination  
14 needs to be made as to what call options to sell. For these  
15 transactions the procedures for a single position account are  
16 followed for each position in the multi-position account(s). If  
17 someone is trading in multiple accounts, care should be taken  
18 that none of the accounts hold positions in the same stock.

19 [0057] In the preferred embodiment a different stock  
20 selection procedure is used for Category 3 accounts. In single  
21 position accounts and Category 1 and Category 2 accounts only  
22 two levels of positions were considered. In Category 3 accounts  
23 more levels are considered. For example in addition to Level  
24 100 and Level 200 positions, Level 300, 400, and 500 are

1 considered. FIGURE 16 presents an example of a reporting  
2 structure of Category 3 accounts.

3 [0058] Before picking the stocks the procedures for sorting  
4 the stocks for category three accounts is different in the  
5 preferred embodiment. Rather than sorting the stocks by option  
6 bid price, the stocks can be sorted by the percent downside  
7 protection. This is the option premium divided by the price of  
8 the stock.

9 [0059] FIGURE 17 illustrates an embodiment of a procedure for  
10 picking stocks for category 3 accounts. First pick the first  
11 stock on the screened list that was sorted for a category 3  
12 account and set "n" to 5 450. The "n" is set to 5 because the  
13 first purchase level to consider is a Level 500 purchase. The  
14 next step 452 is to compare the open interest liquidity level of  
15 the stock to the open interest liquidity threshold for the  
16 current level considered. The first time through, the relevant  
17 threshold is the Level 500 threshold. In the present embodiment  
18 the thresholds for the different levels are detailed in FIGURE  
19 17. If the threshold is not met 452, then try decreasing the  
20 level by one step(n=1) 454. If n is greater than "1" 456, then  
21 proceed trying the next level threshold 452. However if n is  
22 not greater than "1", then calculate PEI for a level 100  
23 purchase and compare this amount to the remaining monthly  
24 allowance. If the extended amount is less than this constraint,

1 buy at level 100; otherwise, pick the next stock on the list  
2 (assuming there are stocks left on the list).  
3 [0060] When the open interest level is greater than the open  
4 interest threshold for a level 452 then the extended amount for  
5 purchasing the stock at that level is calculated 462. This  
6 extended amount is then compared to both the Diversification  
7 constraint ( $C_{DL}$ ) 464 and the Monthly Allowance remaining ( $I_{RA}$ )  
8 466. If the extended amount is greater than either one of these  
9 constraints 464 466, then try the next lower purchase level by  
10 decrementing  $n$  down 1 (n-1) 454. If the extended amount is  
11 below both constraints 464 466, then stock should be purchased  
12 at the current level  $n$  470. Once  $n$  is set equal to 1 the  
13 Diversification constraint is not checked; only the remaining  
14 Monthly Allowance constraint is tested/applied. Whenever stock  
15 is purchased the Monthly Allowance remaining ( $I_{RA}$ ) should be  
16 adjusted 472 by subtracting the extended amount from the  
17 previous Monthly Allowance remaining. If the monthly allowance  
18 remaining is greater than the minimum allowable purchase; (In  
19 this embodiment \$2,500 or (100)(\$25) where \$25 is the minimum  
20 stock price) and there are stocks still on the available on the  
21 list then proceed to picking the next stock on the list and  
22 reset  $n$  to 5 460. On the other hand if either the monthly  
23 allowance remaining is below the minimum purchase or there are

1 no stocks remaining available on the list then quit for the  
2 month 478.

3 [0061] For any multi-position account every month the monthly  
4 allowance should be recalculated according to the previously  
5 discussed equations before engaging in any transactions. After  
6 recalculating the Monthly Allowance, the existing positions  
7 should be maintained by following the procedures. Only after  
8 all of the existing positions have been maintained should new  
9 positions be contemplated. When contemplating new positions the  
10 procedures for screening and sorting the list of stocks should  
11 be repeated according to the category of the account.